

AMENDMENTS TO THE CLAIMS

1-24. (Cancelled)

25. (New) A resource management system, comprising:

a plurality of electronic equipments classified into groups according to functions of the plurality of electronic equipment;

a plurality of lower layer transmission devices with ports where said plurality of electronic equipments are operable to be connected;

an upper transmission device operable to connect said plurality of lower layer transmission devices in subordinates and to relay information among said plurality of electronic equipments being connected to said plurality of lower layer transmission devices; and

a resource management server operable to manage resources to be used for transmitting information between said upper transmission device and said plurality of lower layer transmission devices, the resource management server comprising:

at least one processor; and

a memory, wherein the at least one processor executes resource management functions including:

a storing function of storing first group information and reservation status information, the first group information defining a group to which a function of a first electronic equipment connected to a transmission apparatus belongs, the reservation status information including information with respect to an available bandwidth for connection to the transmission apparatus;

a receiving function of receiving second group information and resource reservation-requesting information from a second electronic equipment newly connected to the transmission apparatus, the second group information defining a group to which a function of the second electronic equipment belongs, the resource reservation-requesting information including information with respect to a bandwidth requested by the second electronic

equipment;

a group-judging function of judging, based on the first group information and the second group information, whether or not the second electronic equipment belongs to the same group as the first electronic equipment when the receiving function receives the second group information; and

a path-judging function of judging, based on the reservation status information and the resource reservation-requesting information, whether or not a communication path between the first electronic equipment and the second electronic equipment is available when the group-judging function judges that the second electronic equipment belongs to the same group as the first electronic equipment,

wherein said resource management server is operable to manage information of resource reservation status and information of groups of all said electronic equipments connected to said plurality of lower layer transmission devices; when said plurality of electronic equipments are newly connected to said plurality of lower layer transmission devices, each respective electronic equipment is operable to send, to said resource management server, a notice of resource reservation request and group information of the respective electronic equipment; and when said resource management server receives the notice, said resource management server is operable to set up a path in a network connecting the newly connected electronic equipments and other electronic equipments belonging to the same group that the notice indicates, and said resource management server is operable to judge if the resource reservation request according to the notice is acceptable on the path set up in the network.

26. (New) A resource management system according to Claim 25, wherein said resource management server is operable to update reservation status of the resources when the resource reservation request according to the notice is acceptable on the path set up in the network, and operable to make at least a resource reservation for the respective electronic equipment.

27. (New) A resource management system according to Claim 25, wherein said resource management server is operable to generate picture information displaying whether the resource reservation request is acceptable or not.
28. (New) A resource management system according to Claim 25, wherein, when a resource reservation request is rejected, said resource management server is operable to generate picture information displaying a location on the network that causes the rejection.
29. (New) A resource management system according to Claim 25, wherein, when a resource reservation request is rejected, said resource management server is operable to search an alternative port through which the resource reservation request is acceptable and to generate picture information displaying a location of the searched alternative port.
30. (New) A resource management system according to Claim 25, wherein, when a resource reservation request is rejected and when there exist a plurality of grades of service quality, said resource management server is operable to make another resource reservation request with a lower grade of service quality.
31. (New) A resource management system according to Claim 25, wherein, when a resource reservation request is rejected, said resource management server is operable to cancel the present reservation status and to make a new resource reservation request.
32. (New) A resource management system according to Claim 31, wherein the new resource reservation request is made in order of demand for higher grade resources.
33. (New) A resource management system according to Claim 31, wherein the new resource reservation request is made in order of demand for lower grade resources.

34. (New) A resource management system according to Claim 31, wherein the new resource reservation request is made as directed by a user input.

35. (New) A resource management system according to Claim 25, wherein, when a resource reservation request is not actually practiced although reservation thereof is made, the resource reservation request is diverted to other services.

36. (New) A resource management system according to claim 25, wherein the reservation status information further includes information with respect to an available bandwidth for the communication path, and

wherein the path-judging function compares the available bandwidth for the communication path with the bandwidth indicated by the resource reservation-requesting information to judge whether or not the communication path is available.

37. (New) A resource management system according to claim 36, wherein the path-judging function judges that the communication path is available when the available bandwidth for the communication path is not less than the bandwidth indicated by the resource reservation-requesting information.

38. (New) A resource management system according to claim 37, wherein the at least one processor further executes:

a reservation function of reserving a resource requested by the second electronic equipment when the path-judging function judges that the communication path is available.

39. (New) A resource management system according to claim 36, wherein the path-judging function judges that the communication path is not available when the available

bandwidth for the communication path is less than the bandwidth indicated by the resource reservation-requesting information.

40. (New) A resource management server according to claim 36, further comprising:
a display unit operable to display a judgment result generated by the path-judging function.

41. (New) A resource management server according to claim 25, wherein the path-judging function specifies alternative and available communication paths existing between the second electronic equipment and another electronic equipment differing from the first and second electronic equipment when the path-judging function judges that the communication path is not available.

42. (New) A resource management server according to claim 25, wherein the path-judging function specifies alternative and available communication paths having less quality of service among a plurality of alternative and available communication paths existing between the second electronic equipment and another plurality of electronic equipment differing from the first and second electronic equipment when the path-judging function judges that the communication path is not available.

43. (New) A resource management server according to claim 25, wherein the transmission apparatus includes a plurality of transmission devices.

44. (New) A resource management server according to claim 25, wherein the at least one processor further executes:

a specifying function operable to specify a location to be connected for the second

electronic equipment.

45. (New) A resource management server according to claim 25, wherein the at least one processor further executes:

a re-reservation function of cancelling a present reservation status to make a new resource reservation request when the path-judging function judges that the communication path is not available.

46. (New) A resource management method for managing resources for a plurality of electronic equipment classified into groups according to functions of the plurality of electronic equipment, the resource management method comprising:

storing first group information and reservation status information, the first group information defining a group to which a function of a first electronic equipment connected to a transmission apparatus belongs, the reservation status information including information with respect to an available bandwidth for connection to the transmission apparatus;

receiving second group information and resource reservation-requesting information from a second electronic equipment newly connected to the transmission apparatus, the second group information defining a group to which a function of the second electronic equipment belongs, the resource reservation-requesting information including information with respect to a bandwidth requested by the second electronic equipment;

judging, based on the first group information and the second group information, whether or not the second electronic equipment belongs to the same group as the first electronic equipment when the receiving function receives the second group information; and

judging, based on the reservation status information and the resource reservation-requesting information, whether or not a communication path between the first electronic equipment and the second electronic equipment is available when the

group-judging function judges that the second electronic equipment belongs to the same group as the first electronic equipment.

47. (New) A program stored on a computer-readable medium for causing a computer to perform a method of resource management for a plurality of electronic equipment classified into groups according to functions of the plurality of electronic equipment, the method comprising:

storing first group information and reservation status information, the first group information defining a group to which a function of a first electronic equipment connected to a transmission apparatus belongs, the reservation status information including information with respect to an available bandwidth for connection to the transmission apparatus;

receiving second group information and resource reservation-requesting information from a second electronic equipment newly connected to the transmission apparatus, the second group information defining a group to which a function of the second electronic equipment belongs, the resource reservation-requesting information including information with respect to a bandwidth requested by the second electronic equipment;

judging, based on the first group information and the second group information, whether or not the second electronic equipment belongs to the same group as the first electronic equipment when the receiving function receives the second group information; and

judging, based on the reservation status information and the resource reservation-requesting information, whether or not a communication path between the first electronic equipment and the second electronic equipment is available when the group-judging function judges that the second electronic equipment belongs to the same group as the first electronic equipment.